One Lighting Control Platform for a Connected World

Hubbell Control Solutions’ NX Distributed Intelligence™ platform delivers a seamless interior and exterior lighting control solution. NX manages projects from a single room, to entire buildings and multi-location properties. NX offers complete flexibility in project design by offering both wired and wireless options, with a common user interface.

Table of Contents

4  The Value of NX
6  Application Solutions
8  Platform Architecture
10  Product Guide
12  Enabled Lighting Portfolio
14  Maximize Energy Savings
16  Meet Standards & Codes
18  Project Support
Multiple Solutions, One Platform
NX Distributed Intelligenced™ lighting control platform utilizes a Distributed Network Architecture (DNA) that connects intelligent devices including luminaires, controllers, panels, occupancy sensors, photocells, wall switches and dimmers, creating a system with an unmatched level of intelligence, simplicity, scalability and versatility.

Truly Distributed
The Hubbell Control Solutions NX Distributed Intelligence lighting control platform is the first of its kind to utilize a distributed network architecture (DNA) which provides users with unmatched system reliability, scalability and simplicity.

Simple
NX provides nearly unlimited lighting control design possibilities and easily self-configures, automatically meeting energy code requirements as devices are connected.

Scalable
The NX platform is designed to scale from a single standalone room to a complete networked building with a comprehensive portfolio of panel, room-based and in fixture controllers, sensors and user interfaces as well as support for Building Automation Systems.

Versatile
NX supports indoor and outdoor applications, wired, wireless and hybrid networked lighting control deployments, and enables emerging applications such as Hubbell Lighting’s SpectraSync™ color tuning technology.

In-Fixture Control
- Luminaire-integrated design
- Out-of-the-box operation
- User-friendly control

Room Control
- Easy plug-in installation
- SmartPORT™ auto-configuration
- Adaptive energy efficient operation

Networked Building Control
- Networked solution
- Control and monitor software
- Integration with BAS

Scalable Solutions
for Today and Tomorrow
NX portfolio of compatible products provides the flexibility to easily scale from a single fixture to a complete building using a broad selection of multi-tiered control strategies.
NX Delivers Solutions for Any Space or Budget

NX Distributed Intelligence™ platform offers lighting control solutions for virtually any application. Whether indoor or outdoor, wired or wireless, the distributed nature of the NX architecture provides cost-effective and flexible solutions that meet energy codes, maximize energy savings and simplify building operations.

### Indoor
- **Commercial**
- **Education**
- **Healthcare**
- **Hospitality**
- **Industrial**
- **Retail**

### Outdoor
- **Parking & Site**
- **Building Exterior**
- **Walkways**

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- **Commercial**
  - Standalone or networked device and room level controls
  - Plug and play vacancy control meets energy codes
  - Open and closed loop daylight harvesting options

- **Education**
  - Accommodate special classroom lighting control requirements
  - Programmed continuous color tuning when combined with SpectraSync™ enabled luminaires
  - Single or multi-zone daylight harvesting

- **Healthcare**
  - Meet complex switching requirements for patient rooms
  - Integration with low voltage bed controls
  - Continuous dimming and color tuning options

- **Hospitality**
  - Continuous dimming and color tuning of LED luminaires
  - Manual, scheduled, and preset scene activated dimming options
  - Dim to Warm LED luminaire control is ideal for dining applications

- **Industrial**
  - Integrated fixture controls simplify deployment
  - Accommodates high mounting heights found in warehouse and manufacturing applications
  - Wireless mesh capability enables networking and building wide integration

- **Parking and Site**
  - Easily meet outdoor lighting code requirements
  - Integrated fixture controls for dual-level motion based control
  - Integrated scheduling options with wireless programming

- **Retail**
  - Lighting control panel solutions offer centralized maintenance
  - Flexible schedule based control aligns well with retail requirements
  - Scheduling offset from “open/close” time for easy changes

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Intelligence is in our DNA

NX utilizes a Distributed Network Architecture (DNA), which enables programming to be stored at the device level. Unlike other platforms, NX’s fully distributed design means that each intelligent control can function independently all the way down to the room, fixture and device level. This revolutionary approach to lighting control provides a truly intelligent system that eliminates operational dependencies on software, gateways and servers. Today, many other lighting control systems are dependent on and responsive to higher level controllers in the system architecture.

- **Intelligent Solutions**
  - System architecture built on DNA delivers reliable operation with adaptive code compliant solutions

- **Intuitive Setup and Commissioning**
  - Ease of implementation with automatic self-configuration feature and mobile App tool

- **Versatile Platform**
  - Multiple deployment options support wired, wireless and hybrid networked applications

- **Scalable Architecture**
  - Scales to accommodate a single fixture to large scale enterprise networked facilities

### Diagram Key

- **HubBNET™ Wireless**
- **Ethernet**
- **HubBNET™ Powered Ethernet**
- **SmartPORT™ Communication**
- **D-120™ Wiring**

For additional solutions possible with NX please visit hubbellcontrolsolutions.com to view our Vertical Market Application Guides.
Complete Suite of Products

NX Distributed Intelligence™ offers a broad portfolio of controllers, network devices, panels, sensors, and interfaces under one platform to address new construction and retrofit applications.

**In-Fixture Controls**
- On / Off control and two channel dimming
- Suitable for indoor and outdoor applications
- Wireless programming
- Cat5 plug and play
- Provide communication link for Area Controllers
- Supports up to 6 lighting zones per room
- Simple setup using the NX mobile App

**Room Controls**
- Intelligent auto-configuration with devices
- Automatic code compliance
- Cat5 plug and play connectivity
- UL524 emergency solutions
- Occupancy or vacancy mode with up to 2000 sq. ft. coverage area

**Networked Building Controls**
- Central component for enterprise solutions
- Real-time programming and monitoring
- Native BACnet™ support
- Connect Room Controllers to HubbNET network
- Provide communication link for Area Controllers
- Cat5 plug and play connectivity

**Device Control**
- Occupancy Sensors
- Daylight Sensors
- Interfaces
- Allows third party interfaces
- Supports A/V, Dry Contacts and HVAC options
- Enables Bluetooth commissioning with Real-Time Clock option
- Provide HubbNET wireless network communication
- Robust and reliable IEEE 802.15.4 2.4GHz radio
- Remote, in-fixture and on-fixture mounting options
- Provide dual RJ45 ports for Cat5 daisy-chain connections
- Offer dual, mini SmartPORT™ connections for In-Fixture modules
- Simple attachment to luminaires
- Provide open-loop daylighting controls
- Supports up to 6 lighting zones per room
- Simple setup using the NX mobile App

**NX SimpleTouch™ Graphic Wall Station**
- The NX SimpleTouch Graphic Wall Station provides the ultimate in multi-function operation in a compact single gang package. The NX SimpleTouch graphic wall station provides an intuitive and configurable user control for switching, dimming, color tuning using SpectraSync™ technology and activation of groups and presets.

**In-Fixture Sensor Modules**
- Luminaires-integrated design reduces complexity and design time
- Out-of-the-box operation to meet code and simplify installation
- Bluetooth™ enabled sensors available in five versions to address occupancy and daylight dimming

**Network Accessories**
- Enable connection of additional NX devices
- Provide network connections and power to NX accessories
- Mount to standard DIN rail
- Meet all applicable ASHRAE, IEC, and Title 24 energy codes and requirements
- Operates as a standalone panel or NX network device
- Available in 8, 16, 24, 32 and 48 relay versions

**Area Controller**
- The NX Area Controller is the central component in an enterprise or building networked system. The interface is web browser based and does not require the installation of any software. A native BACnet™ interface facilitates a standard TCP/IP connection providing monitoring and control of lighting by the Building Automation System.

**Simple Setup and Control**

NX offers several user interface options, each optimized for a variety of use cases.

**controlHUBB**
- The controlHUBB app provides Bluetooth™ wireless setup and configuration of NX Room Control devices and luminaires equipped with an NX In-Fixture module with smart sensor. The mobile app is available in Android™ and iOS® versions for free download from Google Play™ or Apple® stores.

**IntelliSCOPE™**
- IntelliSCOPE provides a unique and powerful tool for calibrating and testing NX In-Fixture smart sensors. Motion captured by the sensor is displayed in real time relative to the current sensitivity setting making precise calibration possible without the need for repetitive “test mode” trial and error calibration.

**NX SimpleTouch™ Graphic Wall Station**
- IntelliSCOPE provides a unique and powerful tool for calibrating and testing NX In-Fixture smart sensors. Motion captured by the sensor is displayed in real time relative to the current sensitivity setting making precise calibration possible without the need for repetitive “test mode” trial and error calibration.

**Wall Switch Stations**
- Single and multi button wall switch stations are available in specialty pre-configured and programmable smart versions. Both offer a self-configuration feature that automatically configures the wall switch stations to perform the logical control and code compliant sequence of operation. All NX wall switch stations can be used with Room Controllers, Panels, or In-Fixture Modules in either standalone or networked applications.

These are the key components. For a full list of NX products please visit hubbellcontrolsolutions.com.
NX Enabled Lighting Portfolio

NX Distributed Intelligence™ enables Hubbell’s portfolio of commercial, industrial and architectural luminaires to further reduce energy consumption and total cost of ownership for simple to complex control environments.

This provides you the breadth and flexibility to address all your project requirements today and in the future.

Architectural Indoor

- MOOx 3L

Commercial Indoor

- Litestry™
- Versify™
- Peloton™

Architectural & Commercial Outdoor

- SpectraClean™ 254 Control System for Upper Air Disinfection

SpectraClean 254 luminaire systems may include a digital control system to provide assurance that the UVC germicidal operates as intended in various applications without interfering with occupants in the space. With NX Distributed Intelligence™, the existing lighting control system has the ability to operate both upper air disinfection and visual lighting from a single system. Using embedded SpectraClean 254 functionality within NX, the system can be programmed from the controlHUBB mobile app to operate the germicidal lighting in a variety of modes for upper air disinfection.

- **Scheduled SpectraClean 254**
  - With Scheduled UVC, set times can be defined for the SpectraClean 254 system to operate if the space is unoccupied. Any occupancy can force the UVC lighting to turn off while allowing visual lighting to remain on.

- **Prescribed SpectraClean 254**
  - Specified daily dosage can be set for a scheduled period using Prescribed UVC. Once the prescribed dosage is achieved the UVC lighting will turn off. Any occupancy can force the UVC lighting to turn off while allowing visual lighting to remain on.

- **Post Occupancy SpectraClean 254**
  - The system can be programmed through the Post Occupancy UVC to run the UVC lighting for a short period every time a space becomes unoccupied. Any occupancy can force the UVC lighting to turn off while allowing visual lighting to remain on.

For a complete list of luminaires with integrated NX options please visit hubbellcontrolsolutions.com
Energy Savings and the Building Environment

Lighting comprises 17% of the total energy consumption in a building. While commercial lighting energy use continues to decline as a result of increased LED lighting efficacy and more stringent energy codes, there are still opportunities for energy savings. For example, additional savings can be seen through controlling plug loads and the deployment of dimmable LED luminaires controlled with occupancy or daylight sensors.

Additional HVAC Savings

Native BACnet™ integration with Building Management Systems (BMS) allows an exchange of occupancy and daylight information to help manage energy strategies and promote additional energy efficiency improvements through other building systems, such as HVAC. Integrating lighting control equipment through BACnet has the added benefit of reducing the initial equipment cost, reducing wall and ceiling clutter by eliminating the need for duplicate sensors and leveraging Hubbell Controls Solutions advanced sensor technology. Enabling BMS control of dimmable LED luminaires may represent an additional point of control which reduces the overall thermal load within a conditioned space.

Energy by Use for All Building Types

- Lighting: 17%
- Ventilation: 16%
- Refrigeration: 16%
- Cooling: 15%
- Computers: 10%
- Office Equipment: 4%
- Cooking: 2%
- Water Heating: 1%
- Space Heating: 1%

1 US Energy Information Association

https://www.eia.gov/consumption/commercial/reports/2012/energyusage/
## Code Compliance at Every Level of Scalability

From a single standalone fixture solution to a complete networked building approach, NX can maximize energy savings and meet or exceed today’s energy code requirements.

### Indoor & Code

<table>
<thead>
<tr>
<th>Code Requirement</th>
<th>Code</th>
<th>Recycling Year</th>
<th>Standards &amp; Code</th>
<th>ENERGIES CODES</th>
<th>NX SCALABLE SOLUTIONS</th>
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<tbody>
<tr>
<td><strong>High End Trim</strong>&lt;br&gt;Local Control</td>
<td>C405.2.2.3 9.4.1.1 (a)</td>
<td>2016</td>
<td>Fixture</td>
<td>Room</td>
<td>Building</td>
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<tr>
<td><strong>Multi Level Control</strong>&lt;br&gt;Scheduling</td>
<td>C405.2.2.1 9.4.1.1 (b)</td>
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<td>Room</td>
<td>Building</td>
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<tr>
<td><strong>Occupancy Sensor Full OFF</strong></td>
<td>C405.2.1.1 9.4.1.1 (c)</td>
<td>2016</td>
<td>Fixture</td>
<td>Room</td>
<td>Building</td>
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<tr>
<td><strong>Occupancy Sensor Partial ON</strong></td>
<td>C405.2.1.1 9.4.1.1 (d)</td>
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<td>Room</td>
<td>Building</td>
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<tr>
<td><strong>Occupancy Sensor Partial OFF</strong></td>
<td>C405.2.1.2 9.4.1.1 (e)</td>
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<td>Building</td>
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<tr>
<td><strong>Continuous Daylighting</strong></td>
<td>C405.2.3 9.4.1.1 (f)</td>
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<td>Room</td>
<td>Building</td>
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<td><strong>Plug Load Control</strong></td>
<td>8.4.2 130.1 (g)</td>
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<td>Fixture</td>
<td>Room</td>
<td>Building</td>
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<td><strong>Demand Response</strong></td>
<td>130.1 (h)</td>
<td>2016</td>
<td>Fixture</td>
<td>Room</td>
<td>Building</td>
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<tr>
<td><strong>BMS Integration</strong></td>
<td>Contact Closure</td>
<td>2016</td>
<td>Fixture</td>
<td>Room</td>
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</tr>
</tbody>
</table>

### Outdoor & Timeclock

<table>
<thead>
<tr>
<th>Code Requirement</th>
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<tr>
<td><strong>Astronomical Timeclock</strong>&lt;br&gt;Setback</td>
<td>C405.2.5(2) 9.4.1.4 (a)</td>
<td>2016</td>
<td>Fixture</td>
<td>Room</td>
<td>Building</td>
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<tr>
<td><strong>Daylight OFF</strong>&lt;br&gt;Demand Response</td>
<td>C405.2.5(3) 9.4.1.4 (b)</td>
<td>2016</td>
<td>Fixture</td>
<td>Room</td>
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### Control Options

- **High End Trim** - An artificial maximum light output set below actual maximum light output for each space.
- **Local Control** - Manual lighting controls that control all the lights in that space and requires human intervention.
- **Multi-level control** - Providing additional light levels in a space beyond Full ON and Full OFF.
- **Plug Load Control** - Automatically turns off designated receptacles in response to all occupants leaving the space or time of day.
- **Continuous Daylighting** - Automatically turns lights down to a reduced level or off based on the amount of daylight present in a space.
- **Daylight OFF** - Automatically turns the lights off based on the amount of daylight.
- **Demand Response** - A defined temporary reduction of lighting load or load shedding in response to a request from an energy authority such as a utility or regional transmission operator.
- **BMS Integration** - The data exchange for control and monitoring from a facilities Building Management System or Energy Management System using a common protocol such as BACnet™.
- **Setback** - Automatically turns lights down to a reduced level after all occupants leave the area.
- **Partial ON** - Automatically turns lights on to a reduced level between full on and full off when occupants enter the space.
- **Partial OFF** - Automatically turns lights down to a reduced level between full on and full off after all occupants leave the space.
Comprehensive Support Options to Meet Project Needs

Phone and Online Support
While it is our goal to provide you with intelligent, simple and scalable control solutions, customer experience level and project complexity may necessitate additional support during the design development, construction and post-occupancy stages of a project. The Hubbell Control Solutions support team is available for consultation to evaluate multiple control scenarios to identify the ideal lighting control device or system to meet energy code requirement and customer criteria. Additionally, our team of friendly and experienced professionals is enabled to assist on-site personnel, such as installation contractors, third party integrators, certified field technicians and facilities personnel, to quickly resolve issues and provide additional support.

Design Services
Our team of lighting control system design professionals are available to provide sensor layouts, networked system design services and third party integration support for new and retrofit projects. Our goal is to provide you with on-time and accurate delivery of design deliverables optimized for your specific application, compliant with local building codes and project specifications.

For additional resources and tools please visit hubbellcontrolsolutions.com

On-site Support
Hubbell Control Solutions offers on-site support service to ensure your project goes smoothly. While Hubbell Control Solutions products are designed with simplicity in mind, some projects may benefit from a Certified Field Technician to perform an on-site pre-installation walk-through, after-hours and remote startup assistance, occupant training, sensor tuning, preset programming and other pre/post-occupancy services.

Warranty
Hubbell Lighting provides a 5-year limited warranty for LED luminaires and Hubbell Control Solutions devices.

Technical Service Center:
(800) 888-8006